

FOREST TRAILS AND LANDINGS

(Acre)
Code 655

Natural Resources Conservation Service
Conservation Practice Standard

I. Definition

A route, travel-way, or cleared area within a forest.

II. Purposes

This practice may be applied as part of a conservation management system to support one or more of the following purposes:

- Provide access to forest stands for management.
- Provide access for removal and collection of forest products.
- Provide access to forested areas for recreation.
- Minimize onsite and off-site damage to resources during periods of access.

III. Conditions Where Practice Applies

This practice applies to forested areas.

IV. Federal, State, and Local Laws

Users of this standard should be aware of potentially applicable federal, state, and local laws, rules, regulations, or permit requirements governing Forest Trails and Landings. This standard does not contain the text of federal, state, or local laws.

V. Criteria

A. General Criteria

Trails and landings will be of a size, gradient, number and location to economically and efficiently accomplish the intended purpose. They shall be configured to minimize adverse onsite and offsite impacts such as accelerated erosion, riparian zone degradation, stream channel and stream bank damage, hydrology modification and aesthetics. Trails and landings will be installed with a minimum amount of damage to advanced regeneration, residual growing stock and wildlife habitat.

1. Trails

The minimum width of trails will be 10 feet. Trails will be located at intervals no closer than 300 feet. A minimum number of trails and landings will be installed to meet the intended purpose.

All surface water runoff from trails shall be diverted onto well-vegetated and stable areas before entering a riparian zone. Location and layout for trails and landings will conform to "Wisconsin's Forestry Best Management Practices for Water Quality" Field Manual, publication no. PUB-FR-093 95, by Bureau of Forestry, Wisconsin Department of Natural Resources.

Water bars, broad based dips, fords, diversions, culverts and other drainage measures for trails shall be of sufficient size, interval and gradient to provide adequate drainage and erosion control.

Capacity design computations for culverts and other water management practices shall use the 2-year, 24-hour storm frequency rainfall event as a minimum. The designer shall evaluate the risk of practice failure for each site and increase the design capacity as needed to minimize the potential for damage to resources down gradient of the site.

The type of equipment used and timing of equipment use will take into account site and soil conditions in order to maintain site productivity and minimize soil erosion, displacement and compaction.

2. Landings

Landings will be located on soils that can support heavy equipment, e.g. moderately well to well drained soils. Landings will be located on areas where water will not accumulate and where there is safe access

including visibility when entering onto public roads.

Landings will be located a safe distance from overhead and underground utilities according to utility company specifications.

3. All ruts and berms shall be smoothed to grade level as soon as practical after completion of the harvest operation.
4. Establishment of Vegetation

Trails and landings where appropriate shall be re-vegetated through natural or artificial means to control erosion. Natural regeneration of native species shall be used in lieu of seeding and mulching to re-vegetate a site, unless it is determined that existing seed banks or the residual stand will not reestablish adequate plant density. For artificial re-vegetation, refer to Wisconsin Field Office Technical Guide (FOTG), Section IV, Standards 612, Tree and Shrub Establishment, and 342, Critical Area Planting. All non-native plants used for re-vegetation will be evaluated for potential to become invasive species.

5. Slash

Eliminate long, narrow bands of slash, debris and vegetative material left on the site after construction by lopping and scattering, chipping, removal or piling slash for wildlife habitat.

6. Stream Crossings

Stream crossing design and construction will conform to Chapter 6 of Wisconsin's Forestry Best Management Practices for Water Quality Field Manual-WDNR Publication no. PUB-FR-093 95.

7. Comply with applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice.

B. Criteria Applicable to Temporary Trails and Landings

Temporary trails and landings will be designed and constructed for short-term use for a specific project such as forest stand improvement activities. Temporary trails and landings will

only be used when the ground is frozen or firm. When the activity is complete, the trails and landings will be closed.

All trash, containers, equipment and other contractor materials shall be removed prior to closing of landings.

Temporary landings and trails will be re-vegetated according to the plan developed for the site.

All stream crossing and temporary water management structures will be removed and all disturbed areas will be re-vegetated according to the plan developed for the site.

VI. Considerations

Additional recommendations relating to design that may enhance the use of, or avoid problems with, this practice but are not required to ensure its basic conservation functions are as follows.

- A. Assure safe ingress and egress to site.
- B. Locate landings and trails to preserve aesthetic qualities.
- C. Access to landings and trails may be limited outside of logging periods to minimize erosion, safety and liability risks, and maintenance costs.
- D. Landings and trails may be used for wildlife food and cover plantings.
- E. Landings and trails may be utilized as firebreaks.
- F. Consider cultural resources and environmental concerns such as threatened and endangered species of plants and animals, natural areas and wetlands.
- G. For permanent access to Forest Land, refer to the FOTG Standard 560, Access Road.

VII. Plans and Specifications

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation. Specifications for re-vegetation of landings and trails should include species, timing and method of application. The type location and construction plans for erosion control and water management structures shall be provided as needed

VIII. Operation and Maintenance

An operation and maintenance plan shall be developed that is consistent with the purpose of this practice, intended life of the components, and criteria for design. The plan shall include but is not limited to:

- A. Periodic inspections of landings, trails, and water management structures will be conducted and where necessary, repairs will be made.
- B. Landings and trails utilized as firebreaks will be properly maintained to accomplish this purpose. See FOTG Standard 394, Firebreak.
- C. Landings and trails may be closed for erosion control, safety, liability, and reduced maintenance costs. To close, remove high maintenance structures such as culverts and bridges, and establish vegetative cover by natural regeneration or by planting and seeding according to FOTG Standard 342, Critical Area Planting.

IX. References

USDA, NRCS Wisconsin Field Office Technical Guide (FOTG), Section IV, Practice Standards and Specifications.

Wisconsin Department of Natural Resources, Bureau of Forestry, Publication No. PUB-FR-093 95, Forestry Best Management Practices for water Quality Field Manual, Chapter 6.